

**ABSTRACT OF THE DISCLOSURE**

A method, apparatus and article of manufacture for performing automatic intermodule call linkage optimization. In one embodiment, the run time is optimized for an object code generated from a source code. Initially, information is extracted for each procedure call in the source code. The extracted information is used to select a call linkage for each procedure call. The call linkages are selected to minimize the run time of the object code generated from the source code. Once the object code is generated from the source code, the object code is run using the selected call linkages for each procedure call.